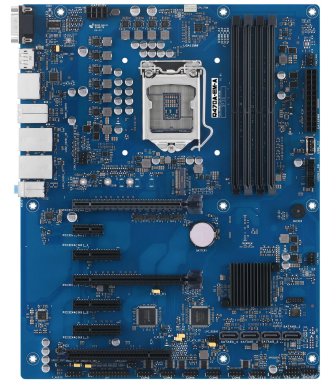


Q470A-EM-A

ATX, LGA 1200 Socket for 10th /11th Gen. CPU, Q470 Chipset, 4*U-DIMM
2*PCIe x16 slots, 2*DP, 1*M.2 slot, USB 3.2 Gen1



Features

- Support up to 125W Intel® 10th /11th Gen. CPU
- 2 x PCIe® x16 slots support dual graphic cards
- Up to 4096 x 2160 @60 Hz DisplayPort
- M.2 storage up to 2280 with PCIe® x4 & SATA mode
- Up to four-year longevity supply
- Wide temperature range endurance: 0–60° C

Specifications

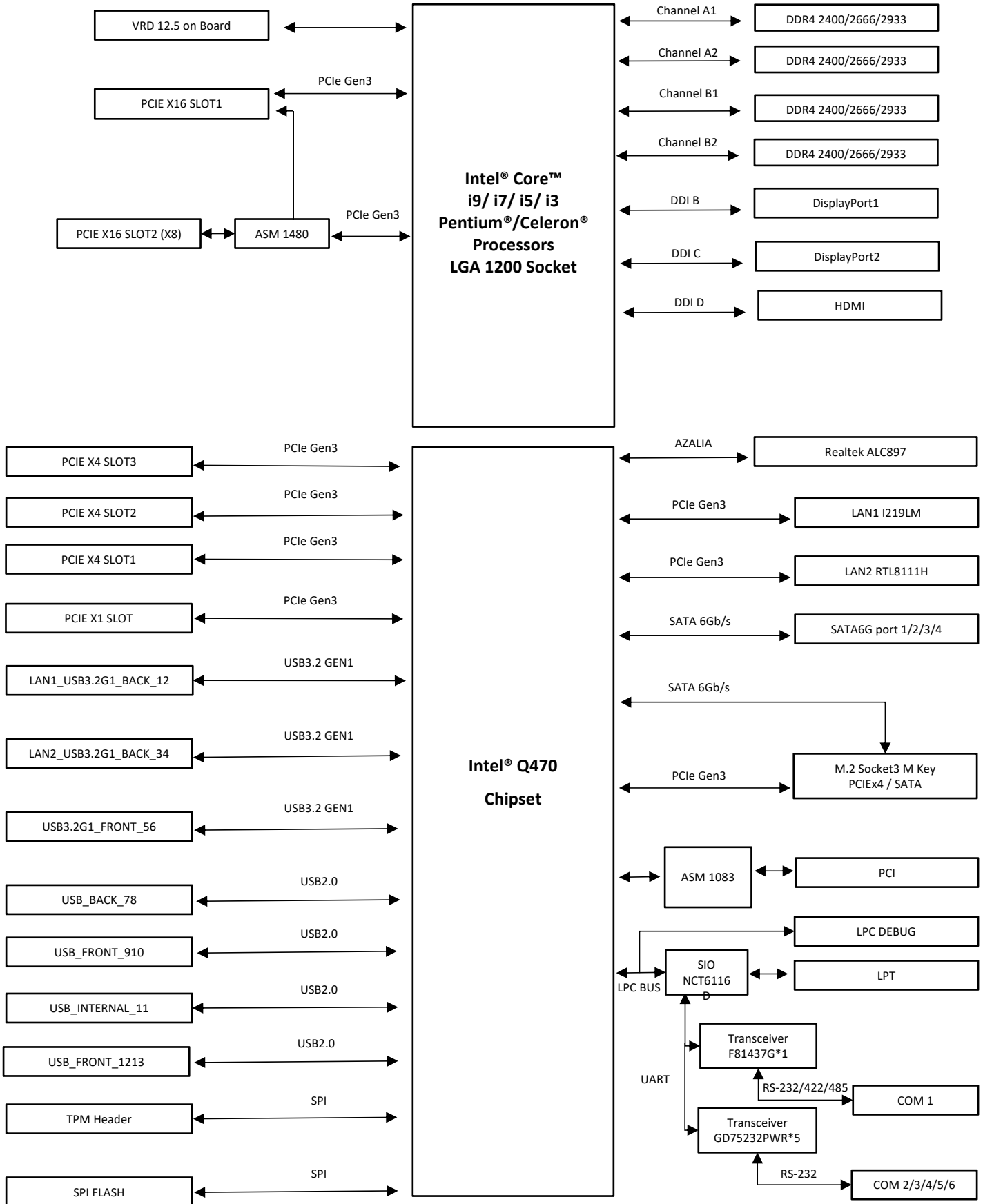


Processor System	CPU	Intel® Socket 1200 for 10 th & 11 th Generation Core™ i9/ i7/ i5/ i3/Pentium®/Celeron® Processors
	TDP	Up to 125W
	Chipset	Intel® Q470 Chipset
Memory	Technology	DDR4 2400/2666/2933 MHz
	Max.	128GB (32GB per U-DIMM)
	Socket	4 x U-DIMM
Display	DP	1, up to 4096 x 2160 @ 60Hz 1 (COMBO DP+HDMI) ,up to 4096 x 2160 @ 60Hz
Expansion Slot	PCIe	2 x PCIe 3.0/2.0 x16 slot (1 x16 mode/ 2 x8 mode) *If any expansion card is installed on the second x16 slot, BIOS automatically switches the signal from 1 x16 mode to 2 x8 mode. 3 x PCIe 3.0/2.0 x4 1 x PCIe 3.0/2.0 x1
	PCI	1
	M.2	1 x M.2 M key, type 2242/2260/2280 (PCIe x4/ SATA)
Ethernet	Speed	10/100/1000Mbps
	Controller	1 x Intel® i219LM (1 GbE), support WOL/PXE 1 x Realtek RTL 8111H
	Connector	2 x RJ-45
Audio	Codec	Realtek ALC897 High Definition Audio
	Connector	Line-Out, Line-In, Mic in
Storage	SATA port	Up to 4x SATA Gen 3.0, up to 6Gb/s* , RAID 0/1/5/10 *If install M.2 PCIe x4/ SATA SSD on M.2 M key slot, SATA port 2 will be disabled.
Rear I/O	DP	2
	USB 3.2 Gen1	4
	USB 2.0	2
	Ethernet	2
	COM Port	1 x RS232/422/485 (5v/12v/ Ring)
	Audio jack	3 (Line-Out, Line-In, Mic in)
	Ethernet	2
	COM Port	1 x RS232/422/485
	PS/2	1
	Audio jack	3 (Line-Out, Line-In, Mic in)

Specifications

Internal Connector	COM header	5x RS232
	USB2.0	2 x Header support additional 4 x USB2.0 Ports 1 x Vertical connectors
	USB3.2 Gen 1	1 x Header support additional 2 x USB3.2 Gen1 Ports
	CPU Fan Connector	1 (PWM mode)
	Chassis Fan Header	3 (PWM mode)
	Chassis Intrusion Header	1
	Front Panel Audio Connector (AAFP)	1
	System Panel Header	1
	Clear CMOS Jumper	1
	Speaker Connector	1
	LPC Debug Header	1
	LPT Header	1
	LAN LED Header	1
	Buzzer	1
	SPDIF	1
	AT/ATX Select Header	1
	Power Connector	1 x 8-pin ATX 12V Power Connector & 1 x 24-pin ATX Power Connector
Watchdog Timer	H/W	YES
Security	TPM	1 x SPI TPM header
Power	Power Type	AT mode/ ATX mode
Operating System	Microsoft Windows	Windows 10 (64bit) / Win10 IoT Enterprise
	Linux	Ubuntu, RedHat Enterprise, Fedora Workstation, OpenSUSE
Environment	Operating Temperature	0~60° C
	Non-Operating Temperature	-40~85° C
	Relative Humidity	15%~95%
Dimension	Form Factor	ATX, 305 x 244 mm
Certification	EMC(CLASS B)	CE,FCC,BSMI,VCCI,RCM
	Safety	CE-LVD

Block Diagram



Order Information

Model name	Part number	Description
Q470A-EM-A	90ME088*	LGA1200, Q470, DP, MB

* The part number might vary for different regulations and package. Please consult the TPM in your region for exact 90PN.

Packing List

Part number	Description	Quantity
13020*	IO shield	1
14013*	SATA 6G CABLE	1
13020*	M.2 screw pack	3

* The part number might vary due to part number revision.